

HESITATION PHENOMENA IN THE INTERLANGUAGE DISCOURSE OF JAPANESE LEARNERS OF ENGLISH

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INTRODUCTION

Speaking in a second language [L2] can be seen as a problem-solving activity in which two very different basic needs have to be balanced simultaneously. On the one hand is the learner's need to keep cognitive load at a manageable level and to ensure that information-processing in planning, producing, and comprehending utterances proceeds smoothly. On the other hand is the learner's desire to maintain a positive image in front of others in the conversational setting and to be accepted as a viable partner in conversational interaction. The problem-solving activity of speaking in L2 can thus be viewed as the balancing of two different types of conversational management task, one cognitive and internal, and the other social and external. These two types of conversational management tasks, the cognitive and the social, in some sense oppose each other. While the social goals pressure the L2 speaker to speak out without hesitation and to avoid any delay, disruption, or audience discomfort in the external management of conversation, the mental management goals may force the learner to spend extra time in lexical searching or in planning before initiating a conversational turn, to hesitate before responding, or to interrupt the flow of conversation to ask for repetitions or clarifications.

The very nature of human communication forces speakers to speak out within a limited amount of time, and generally without planning all aspects of their utterances in advance. Though the general outline of the speech act may be planned in advance, speakers must make choices at many different stages and levels of utterance production (Deese 1980: 83). Wiese (1984: 15) describes the spontaneous decision-making aspect of language production as follows:

... [an] important aspect of language production [is] that the conceptual structures serving as input do not completely determine the utterance. There are considerable degrees of freedom for the speaker with respect to various levels of information. Language production is creative in the sense that the speaker has a number of alternatives available for syntactic structures, lexical units, phonetic realization, etc., even for any given conceptual input. It is in principle necessary for a speaker to make a number of decisions on the various levels of information. On the surface, this appears as the enormous variability of utterances even under almost identical input conditions.

Given multiple alternatives at each stage and level of language production, speakers are constantly making "on-line" decisions about how to proceed once an utterance is initiated. In addition, Baars (1980) hypothesizes that different utterance plans may compete in speech production. Where plans compete in L2 production, it can be assumed that some features of alternative plans are based in the first language [L1] (Dechert 1984: 218). The influence of L1 knowledge in the planning and implementation process for speech production—i.e., of L1 transfer—is undoubtedly the source of a wide range of observed phenomena in the interlanguage of L2 learners.

Carrying out a conversation in a second language is, then, a difficult and risky business. L2 learners have to achieve a solution to the conversational management task that satisfies their need to effectively plan and process information in the language at the same time as it satisfies their need to interact successfully with others. The solution to the problem is especially difficult because satisfaction of the cognitive demands may require more time than is generally acceptable or available while attending to the social demands of face-to-face interaction. This is a particular problem for non-native speakers, whose speech production is less automatized than that of native speakers, as noted by Wiese (1984: 16):

Automatization can optimize language production, and therefore has a special importance for the study of L2 production. L1 and L2 users not only have different amounts of knowledge of the language, but also differ in the efficient use of their knowledge.

Both native and non-native speakers "buy time" for information-processing, while maintaining the conversational floor and keeping the attention of the listener, by using a variety of hesitative devices such as silent pauses, filled pauses such as *uh*, repetitions (Siegman and Feldstein 1979), and certain discourse markers such as *well* (Schiffrin 1987). While short or infrequent unfilled pauses may not disrupt the flow of conversation, long and frequent pausing may be disruptive to natural discourse. To avoid such disruption, L1 and L2 speakers can rely on repetitions and fillers of various sorts to simultaneously satisfy both their cognitive and social needs. These devices give speakers more time to plan their speech while maintaining verbal contact with the listener and holding the conversational floor. Hesitative devices offer a relatively simple solution to the problem of managing conversation in both its cognitive and social aspects, providing a way for L2 speakers to compensate for their limited lexical and syntactic knowledge and their not fully automatized language production. When viewed in this way, hesitation phenomena¹—which might otherwise seem to constitute a type of non-linguistic "clutter" that researchers could ignore—become an important and interesting locus of L2 research. The present paper is an exploration of this area of research using interview data from young adult college-level Japanese learners of English. The investigation begins with an overview of research on hesitation phenomena in L1 and L2 speech, with a focus on English and Japanese. This overview is followed by a description of the speech sample and analytical procedures applied to the data. The third part of the paper describes the results of the study in the context of the preliminary overview. The paper concludes with a summary of the major findings.

¹ For the purposes of the present paper, several different types of devices are grouped together under the general heading of "hesitation phenomena," though it is realized—and in fact discussed in several places within the body of the paper—that there may be significant differences among them in terms of function and distribution.

PREVIOUS RESEARCH ON HESITATION PHENOMENA

L1 Research

Unfilled Pauses

Pausing is a natural part of human communication and an important component of the rhythm of conversation (Jaffe and Anderson 1979). While native English speakers may sometimes devote about equal time to pausing as to vocalization in slow speech,² Brotherton's (1979: 187) figure of 26.7% of the total time spent in unfilled pauses, which is based on interview data for native speakers, may be a more typical average. Ballmer (1980: 212) divides pauses into the two large categories of **Speaker Relevant Pauses** and **Communication Pauses**. Speaker relevant (non-communicative) pauses seem to function primarily in production to aid information-processing and "generally represent semantic planning points" (Brotherton 1979: 206). Communicative pauses fulfill various types of listener-oriented signalling functions (for details, see Ballmer, 1980).

Group Differences

There is evidence (see, e.g., Welkowitz, Bond, and Feldstein 1984) that pause frequency and length vary by gender and by ethnic group. Kowal and O'Connell (1979: 66) report studies of children and adolescents in which pauses are used less by females than by males. There is also evidence in the literature of L1 differences in pausing behavior. While some early researchers on hesitation phenomena (e.g., O'Connell and Kowal 1972: 163; Kowal and O'Connell 1980: 63) suggested that speech rate might be relatively invariable across languages, other research (e.g., Grosjean, 1980; Glukhov, 1975, cited in O'Connell, 1980: 33; Welkowitz, Bond, and Feldstein 1984) suggests that both the length and frequency of pausing vary from language to language. Grosjean (1980: 44), for instance, reports shorter pauses and shorter runs between pauses for English than for French.

² As indicated by the first author's measurements of the speech rate of a variety of American university lecturers and Southern speakers (Pennington, 1989).

Task-Related Effects

Experimental studies of native speakers (e.g., Deese 1980; Goldman-Eisler 1968; Rochester, Thurston, and Rupp 1977; Siegman 1979) suggest that pausing behavior varies with task and that speakers operating at or near their information-processing capacity will pause more than those who are having no difficulty managing cognitive load. Sabin, Clemmer, O'Connell, and Kowal (1979: 48) found:

a close relationship between the length and frequency of unfilled pauses. In all but one instance (the frequency of unfilled pauses in the readings of young children), retellings involve the longest and most frequent use of unfilled pauses, with narratives representing an intermediate use, whereas readings resulted in the lowest rate of occurrence and shortest length of unfilled pause across age levels.

In research on French L1, Grosjean (1980: 44) observes that descriptions, when compared to interviews, are produced more slowly due to a slower rate of articulation but especially to more frequent and longer pauses.

Vocal Hesitators

When a speaker chooses to fill a pause, rather than to leave it unfilled as "bare silence," we can assume that this signifies an attempt to balance the internal and external aspects of the conversational management task by attending to processing and interactive demands simultaneously. Pauses may be wholly or partially filled by a variety of devices which have been investigated in the literature on hesitation phenomena. These include the following categories:

Filled Pauses - "nonsense" syllables such as *uh* or *um*;

Parenthetical Remarks - discourse markers such as *well* or *you know*;

Drawls - lengthening of the final word or syllable of an utterance unit;

Repeats - repetition of a phoneme, word, or phrase.

Each of these vocal hesitators is briefly discussed below.

Filled Pauses

Brotherton (1979: 200) describes the dual function of the syllabic type of filler: "It is an interpersonal signal, produced in social situations, that is used where some processing difficulty or uncertainty is being experienced." Heavy use of filled pauses, coupled with frequent unfilled pauses, seems to be characteristic of the **conceptual-analytic** conversational management strategy described in Poulisse (1989) and Poulisse and Schils (1989).

Parenthetical Remarks

Parenthetical remarks such as *well* and *you know*—like some individual back-channel expressions and perhaps unlike filled pauses (i.e., "true" fillers)—have identifiable and distinct pragmatic functions (Holmes 1984, 1986; Schiffrin 1985, 1987). For this reason, Schiffrin (1987) groups them together with other discourse markers such as *and*, *or*, *but*, and *so*. According to Sabin, Clemmer, O'Connell, and Kowal (1979: 45):

the use of parenthetical remarks allows the speaker to rely on overlearned verbal habits that maintain fluency. The content conveyed by the parenthetical remarks is nonessential to the listener but nonetheless does not interfere with the linguistic coherence of the utterance.

Drawls

A final syllable or segment of a word or longer utterance is often lengthened, or drawled, and "may act as a sort of pause-substitute; indeed it could be regarded as a type of filled pause" (Cruttenden 1986: 40). As a cognitive hesitation phenomenon, this drawling can be explained as a slowing down of speech to allow for planning and monitoring of production (Seliger, 1980: 94). As a social hesitation phenomenon, drawling can be viewed as a way of maintaining the conversational floor and/or of drawing the listener's attention to a particular piece of information in the utterance.

Repeats

A number of studies in English linguistics have investigated the use in discourse of repetition (e.g., Norrick 1987; Tannen 1987a, b). Echoing Ballmer's (1980) work on the functions of pauses, Norrick (1987: 249) notes: "Some

repetitions are production-oriented, and reflect the exigencies of face-to-face communication, while others are hearer-oriented, and reflect conscious strategies to render discourse more coherent and effective." The former are generally classified as repeats.

Group Differences

Citing studies of German, English, Spanish, Dutch, Hindi, and Japanese, Kowal and O'Connell (1980: 63) emphasize the similarities in hesitation behavior across languages, both for L1 speakers and for L2 speakers. At the same time, O'Connell (1980: 32) notes "dramatic differences" in use of vocal hesitators by French and English speakers: "The French speakers used many drawls (syllabic prolongations), whereas the English speakers used many filled pauses." Grosjean (1980: 47) argues that the greater prevalence of drawls in French as opposed to English data relates to the fact that the former is an open syllable language. A similar explanation is applied by Kowal and O'Connell (1980: 63-64), who observe Spanish speakers using more hesitant devices than American English speakers, with the exception of filled pauses. Kowal and O'Connell (1980: 63) account for the low incidence of filled pauses in relation to Spanish phonology: "The high incidence of Spanish words ending in an unaccented vowel precludes extensive use of the conventional filled pause 'uh'." These three studies suggest that there are cross-cultural differences in the use or non-use of vocal hesitators related to the phonological system of each language, resulting in a preference for filled pauses in English, for drawls in French, and for parenthetical remarks in preference to filled pauses in Spanish.

Task Effects

In research on French as L1, Grosjean (1980) found a greater use of vocal hesitators in picture descriptions as compared to interviews. In his discussion of this finding, Grosjean (1980: 44) states:

A comparison of hesitation phenomena in the two tasks [interview and picture description] showed a very similar rank ordering of the different types of pauses (filled pauses, drawls, repeats and false starts) but a doubling in number in the descriptions. It should be noted however that the mean length of unfilled pauses was found to be

practically identical in the two tasks: 0.44 sec in the descriptions and 0.52 sec in the interviews. Although speakers could not lengthen their filled pauses in the descriptions (probably for articulatory reasons) they made up for them by inserting more drawls, repeats and false starts.

Comparison of Hesitators

Though comparative data for the use of different hesitators are not readily available in the literature, some general findings have been culled from two authoritative sources. Figure 1 reproduces findings of a study by Deese (1980) on adult native speakers of English who produced "unplanned" speech, i.e., when "the speaker was responding to questions or otherwise engaged in discourse that he had not planned before the meeting" (Deese 1980: 79). The other data in Figure 1 is from Sabin, Clemmer, O'Connell, and Kowal (1979) for college students (Tables 2.3 and 2.4, pp. 42-43) and adults (p. 44) performing narrative picture description tasks. Since variables (educational level and task) and/or units of measurement (syllables vs. words) are different, the measurements from both studies are included for comparison to the data of the present study.

College Students		Adults			Adults and graduate students		
Unfilled Pause Length /100syls	Unfilled Pause Frequency /100 syls	Filled Pause Frequency /100 syls	Repeat Frequency /100 syls	Parenth. Remark Frequency /100 syls	Unfilled Pause Frequency /100 wds	Filled Pause Frequency /100 wds	Repeat Frequency /100 wds
11.5	10.5	1.39	0.68	1.84	7.22	2.55	3.67
Sabin et. (1979:42-43; 44)					Deese (1980:78)		

Figure 1. Comparative Data for Adult Use of Hesitators in Spontaneous Speech (Mean Values)

L2 Research

Much L2 research on hesitation phenomena has centered on the question of whether differences in L1 and L2 hesitation behavior are quantitative or qualitative. L2 researchers have also investigated differences in hesitation behavior for learners at different levels of L2 proficiency and the similarity of adult L2 hesitation behavior to that of children in L1 development. Other areas of research have involved the effects of L1 transfer and task variation on the use of hesitators by L2 speakers. Each of these areas is briefly reviewed below.

Quantitative and Qualitative Differences Between L1 and L2

A main difference between native and non-native speakers is the lack of automatization of already existing abilities (Wiese 1984: 11). Kellerman, Bongaerts, and Poulish (1987) conjecture that the "compensatory capability" of native and non-native speakers is the same, but that lower linguistic competence in the L2 may cause non-natives to experience additional difficulties in communication. Wiese (1984: 21) emphasizes the quantitative nature of the differences between L1 and L2 speech production:

...[N]o property of L2 production has been found which cannot also be found in L1 production....[I]t is indeed hard to imagine what kind of event could exclusively characterize the speech of L2 learners.

Raupach (1980: 14), on the other hand, hypothesizes "qualitative differences between native speakers and L2 learners in the planning, execution, and correction of their speech." What is at issue in this debate is the degree to which differences exist between L1 and L2 speech production and the significance of any non-quantitative differences that have been found.

Empirical evidence seems to indicate differences in both amount and type of hesitators across languages. A number of studies have compared hesitation behavior in L1 and L2, generally for French or German as L1, and one of these languages or English as L2. In a comparative study of L1 and L2 pausing behavior, Sabin, Clemmer, O'Connell, and Kowal (1979) show nearly twice the frequency of unfilled pauses—23.66 vs. 12.6 per 100 syllables for German speakers retelling a German reading in English as for English speakers retelling an English reading. Deschamps (1980) found a difference in hesitation

phenomena in radio interviews with speakers of French as L1 and their English L2:

French students making descriptions in English L2 will tend to reproduce in this L2 the organization of hesitation processes that exists in their own native language, with an inevitable slow-down of speech rate and an increase of all types of hesitation phenomena due to a lack of fluency.

Looking at the specific differences between L1 and L2 production that Deschamps found, one can note a decrease in the length of runs [i.e., number of syllables between pauses] from 7.4 in the L1 to 4.2 in the L2. Deschamps also found a difference in the relative distribution of three hesitant devices across these two groups of speakers, as summarized in Figure 2:

	French L1	English L2
Silent pauses	67.8	74
Filled pauses	18.2	16.5
Drawls	13.9	9.4
Total	100 %	100 %

Figure 2. Difference in Relative Distribution of Hesitative Devices in French L1 and English L2 (Deschamps 1980: 260)

Deschamps (1980: 260) further notes that the French speakers "seem to be adopting some of the characteristics of the English language with its closed syllables, namely less use of drawls" (13.9% to 9.4% in Figure 2).

In a method which combined a picture description and a story retelling first for L1 and then for L2, Raupach (1980) uncovered a greater frequency of unfilled pauses in L2 performance and a greater length of unfilled pauses in L1 performance, for both French and German speakers. This is interpreted as confirmation that longer pauses related to planning points and shorter pauses to in-process linguistic choices during speech. In addition, he reports a higher rate of pausing and somewhat longer pauses for French speakers than for

Germans. Like others, he found a high percentage (15.4%) of drawl as a hesitation strategy (p. 266). The higher use of drawling by French L1 and L2 speakers and by Spanish speakers but not German or English speakers implies that it may be a device common to CV languages or to syllable-timed rather than stress-timed languages.

Proficiency Level and Developmental Effects

In studies with Dutch learners of English, Poullisse (1989: 141) documents an inverse relationship between proficiency level and number of compensatory strategies (including hesitative devices) used, as well as "some proficiency-related difference in the type of [compensatory strategy] used." Kowal and O'Connell (1980: 63) find similarities in L2 proficiency-related effects and L1 developmental effects for hesitation phenomena:

Adults...at various stages in their learning of a foreign language, manifest a certain analogy to the speech production of younger children. With increasing proficiency in a foreign language, a corresponding decrease in both number and length of silent pauses in reading occurs.

Transfer

As Wiese (1984: 17) contends:

The general picture that emerges from studies of bilingual language processing is that the two languages are neither completely separated nor completely merged.... Since the separation is not complete, there is also an interference effect.

In addition to interference per se, there are cases documented in the literature of L2 speakers using L1 forms in L2 functions, or using L2 forms in novel ways. Raupach (1980), for example, noted French conjunctions such as *mais* used in the interlanguage of native German speakers as hesitators rather than as conjunctions.

Task Effects

According to Dechert (1984: 225):

Telling a story in a second language, as far as story telling is concerned, is a comparatively easy task. Finding the appropriate words and collocations of words is more difficult. Talking about an unfamiliar topic without the possibility of relying on schematically organized knowledge causes many more difficulties.

In studies of Dutch learners of English, Poullisse (1989: 141) found that "the type of [compensatory strategy] used is largely determined by the task." For interviews, she found greater use of transfer and greater variation in types of compensatory strategies used than in other tasks. In addition, speakers were more concerned in interviews with maintaining fluency than with grammatical accuracy, in contrast to a picture description task.

In work by Möhle (1984) on French and German as both L1 and L2, answers to questions were produced more fluently than descriptions of cartoons. In contrast to the Germans, however, the native French speakers experienced relatively disfluent speech while retelling stories in the L2 (German). Möhle (1984: 48) attributes this difference in behavior to the different demands placed on speakers by the different structures of the two languages and to "the respective method acquired in school of regarding and resolving language problems." Although Möhle focuses on syntactic differences, the difference may just as well be attributable to timing differences,³ as German is a "stress-timed" language and French is "syllable-timed."

Previous Studies on Japanese Speakers

O'Connell (1980: 32) cites studies by Osser and Peng (1964) and by Black, Tosi, Singh, and Takefuta (1966) indicating similar speech rates and incidence of silent pauses for native speakers of Japanese and English. For the L2 case, Pennington (1987a) reports a high frequency of unfilled pauses for low-proficiency young adult Japanese learners of English, who achieved on average a speech rate in interviews of only 1.5 syllables per second. This is less than

³ As argued by Donegan and Stampe (1983), these may in fact be at base the same thing.

half the rate of 21-year-old native speakers for story retellings (3.12 syllables per second) or spontaneous narratives (3.7 syllables per second), as reported in Sabin, Clemmer, O'Connell, and Kowal (1979: 40). Reynolds (1984) documents use of pre-pausal lengthening as a hesitator in the formal speech of native speakers of Japanese, which is an essentially CV, syllable-timed—or mora-timed (see Hoequist, 1983)—language. Reynolds (1984) claims that male Japanese speakers tend to use phonologically less salient conversational fillers such as vowel lengthening in final syllables, whereas female speakers tend to use the lexical item *ano*, a phonologically more salient filler, in public speeches. Reynolds speculates that male speakers choose the less obvious fillers as a result of a "masculinity constraint" that pressures them not to appear hesitant or indeterminant because of their role in the Japanese society.

The frequency of individual nonsense syllables and lexical items used as filled pauses and parenthetical remarks in the management of conversations appears to be greater in Japanese than in English. Maynard (1986) documents a mean frequency of 37.83 tokens of these kinds of devices for Japanese speakers during three-minute discourse segments as compared to a mean frequency of 12.17 for American speakers. Mizutani (1982) shows the highest frequency conversational management devices to be syllabic devices that are variants of *ee* and of a nasal syllable, *un*—both Japanese equivalents of English *m-hm* (in its various functions). Pennington (1987a, 1988) documents the use of these two common Japanese syllabic devices as hesitators, i.e., as pause fillers, in the English interlanguage discourse of low-proficiency Japanese learners. Using cross-sectional interview data, she further documents a continuous decrease in the frequency of the Japanese pause fillers with increasing proficiency in spoken English.

In Pennington's (1988) L2 interview data, the frequency of parenthetical remarks is zero for a group of eight low-proficiency Japanese learners. For two groups of eight intermediate-proficiency learners, there are a few cases of *O.K.*, *you know*, and *or something (like that)*, and frequent use of *yes* and *yeah* as back-channel or interactive signalling devices. Advanced learners, in contrast, make use of these parenthetical remarks, or discourse markers, in addition to *well*, *of course*, *I mean*, *like*, *this kind of things*, and *right?*. Thus, it appears that syllabic hesitators from the L1 are pressed into service for the management of discourse in the L2 at an early stage and that syllabic

hesitators—first from the L1 and then from the L2—take the place of parenthetical remarks for low-level learners. Moreover, some Japanese learners employ Japanese parenthetical remarks—e.g., *etto*, *ano* and *nde*—in carrying on an English conversation with a native English speaker (Pennington 1987a,b). Finally, Pennington (1987a,b) documents a heavy reliance on English coordinate conjunctions and possible novel interlanguage “hybrid” forms blending English and Japanese morphology and pragmatics, such as *ande* and *anden*, employed as boundary markers and in loosely constructed pragmatic functions such as those identified by Schiffrin (1987). Some of these uses, even for the most advanced speakers, could be said to be fulfilling the same functions as the items other researchers have classified as hesitant devices.

While the review of previous studies has suggested certain differences between L1 and L2 hesitation behavior, the findings must be considered preliminary, as there has been little research to date on the hesitation behavior of non-Europeans nor of speakers who are not relatively advanced in L2 proficiency. The published research also shows only modest attention so far to hesitation phenomena in interview contexts. Besides Pennington (1987a,b; 1988), no studies have appeared to date on Japanese learners using relatively open-ended elicitation techniques. The research described below is an attempt to remedy this situation by investigating the use of hesitant devices by Japanese L2 speakers under interview conditions.

DESCRIPTION OF DATA AND ANALYSIS

Data

The data for the present study are taken from interviews collected for a pilot study of the JESL (Japanese and English as a Second Language) Project.⁴ The interviews, which took 45-60 mins. each, were conducted individually in English with adult native speakers of Japanese by researchers who were native English speakers. Interviewers on the project were instructed to say as little as possible during the interviews, so that the non-native speaker would have the

⁴ The JESL data consist of samples gathered by means of three task-types: a structured interview, a repetition test, and a picture description task. The authors would like to thank Michael Long, Principal Investigator of the JESL Project and former Director of the Center for Second Language Classroom Research and Craig Chaudron, the subsequent Director of the Center, for providing access to the JESL data.

floor as much of the time as possible.⁵ Considering the fact that the interviewers spoke very little and that the interviewees had the floor almost all the time during these sessions, the task which they performed cannot be considered a true dialogue or conversation. The task performed by these Japanese learners must be considered less casual than a spontaneous conversation but less formal than a story retelling or reading passage. The data can thus be classified as a task-type intermediate between an unprompted conversation and a prompted narrative, speech, or other type of monologue.

For the present study nine of the fifteen original JESL subjects were selected to make the data as comparable as possible in terms of the sex, age difference with the interviewer and educational level of the subjects, since these variables were foreseen as possibly affecting the use of hesitation devices. Detailed information on each subject is given in Table 1. Four female and five male subjects interviewed by both male and female interviewers were analyzed for the present study. Usually the interviewer was somewhat older than the interviewee.⁶ The length of residence in the United States ranged from one month to two years. Experience with English instruction also varied but centered around ten years. Educational background and educational status at the time of the interview varied, though all subjects had college experience.

⁵ Interviewers participated in a training session under the supervision of the Principal Investigator. In order to ensure comparability of data, interview questions and instructions for the tasks were provided in written form. The interviewers were: Carla Deike, Patricia Duff, Michael Harrington, Michael Long, and Lynn Potter.

⁶ Whether the subjects actually recognized the age difference is unknown. It seems logical to assume that the two other dimensions of (a) native speaker vs. non-native speaker and (b) interviewer vs. interviewee overrode the age factor in any case, including those two cases where the interviewer was slightly younger than the interviewee, and that the interviewer was perceived to be in a higher-dominant position and the interviewee in a lower-subordinate position.

Table 1. Information on Subjects

Subject #	1	2	3	4	5	6	7	8	9
Sex (Iee)	F	F	F	F	M	M	M	M	M
Sex (Ier)	M	F	F	M	F	M	F	M	F
Age	29?	32	30	25	24	26	23	30	23
Age Dff	+2?	-2	-4	+14	+2	+5	+3	+1	+3
Length of Residence	2:0?	1:0	0:6	1:6	0:2	1:4	2:0	0:1	1:0
L2 Instruction	10:0?	7:6	10:6	11:6	8:2	9:4	10:0	11:1	11:0
Education	CC		UG	UG	UG	UG		UG	H
Ed. Status	CC		G	G	G	L	L	G	UG

Notes

Sex (Iee): sex of the interviewee (subject)

Sex (Ier): sex of the interviewer

Age Dff: age difference between the subject and the interviewer seen from the subject

Length of Residence: length of residence in English speaking countries

L2 Instruction: amount of second/foreign language instruction obtained

Education: the highest education achieved (H= high school, CC= community college, UG= 4-year university)

Ed. Status: current educational status at the time of the data collection (L= intensive language program, UG= undergraduate, G= graduate)

3:6: reads as 3 years and 6 months

In order to make the data as comparable as possible across subjects, in the analysis, the introductory part of the interview was discarded, as each interviewer used different tactics to familiarize herself/himself to the subject.

The subjects' response to the first four questions—regarding childhood, spare time activities, most frightening or pleasant experience, and the importance of English in the subject's life—were analyzed. The minimum amount of data analyzed was 170 words (28 utterances), and the maximum amount was 661 words (110 utterances). The average amount of data analyzed was 326.6 words and 49.6 utterances.

The JESL data, in its original form, was a rough orthographic transcription.⁷ A revised transcription was made by the second author, a native speaker of Japanese with advanced competency in spoken and written English. In the revised transcription, special attention was paid to hesitation phenomena identified by the first author, a native speaker of English, in a preliminary analysis of the interview tapes. Pauses were transcribed according to a timed estimate of their length as approximately one-half second (0), one second (1), two (2), three (3), or four (4) seconds. Filled pauses, parenthetical remarks, and repeats were transcribed according to their surface manifestations (described below). Drawls were indicated by colons (:) following a vowel or other segment perceived as long in comparison to the surrounding context. Extra-long segments were transcribed with multiple colons. The revised transcription was then verified by the first author. This procedure was repeated three times until both authors reached substantial agreement regarding the transcription.

Analysis

Reynolds (1984: 2) defines fillers as follows: "A filler has no grammatical relationship with any other constituent of the sentence in which it occurs."⁸

⁷ Each interview was transcribed orthographically by the one who conducted that interview and then verified by one of the other interviewers.

⁸ In fact, Reynolds (1984: 2) gives another characteristic of a filler: "A filler occurs at the beginning or within a sentence but not at the end of it." One problem with this criterion from our point of view is that fillers, or vocal hesitations, are quite commonly utterance-final, if "utterance" is defined in phonological terms as a continuous stretch of speech bounded by pauses. Moreover, the present data seem to include some cases where it would be possible to classify certain items as fillers occurring at the end of an utterance (though not necessarily a sentence). An example is the following utterance, in which an instance of *so* that is lengthened in utterance-final position (possibly prompting the interviewer's [m::]) could be classified as a filler according to the criterion of lack of grammatical relationship with other elements in the context:

This definition is broad enough to include what have been termed filled pauses and parenthetical remarks above, as well as certain instances of conjunctions occurring as in utterance-final position (see discussion below). The transcriptions of the data obtained from the nine subjects and retranscribed as described above were carefully analyzed for these features, as well as for cases of repeats and drawls. A category was set up for every hesitator type found in the sample and a frequency count of each category made. Some categories represent the combined frequencies of what appear to be very closely related items, e.g., orthographic transcriptions of "uhm" and "uh" are both classified as *uh*. Every type of filler was counted in a given instance, so that, e.g., "m:...." was tallied as one occurrence of the filled pause *m* and one occurrence of *drawl*. The results of this analysis are summarized in Table 2, which shows the average frequency of hesitators per utterance, per 100 words, and per 100 syllables⁹ across the nine subjects. The reasons for using the three different ways of calculating the average frequency of hesitators are (a) to minimize the risk of missing any patterns that might reveal themselves when a different form of measurement is used and (b) to allow for comparability across other studies and other types of data.

I was (0) in a state of confusion the end of last year so:
 (Interviewer: m::) [*h] but my elder brozer (0) sai:d (2)
 uh | he | he's ok so [h] I need not return to Japan. (S3)

This type of example, which is relatively frequent in the data reported here (and also in Pennington 1987b), would appear to have much in common with what have been termed here "parenthetical remarks, following traditional usage (e.g., Sabin, Clemmer, O'Connell, and Kowal 1979), and elsewhere "discourse markers" (Schiffrin 1987). Thus, it is not clear that the analysis benefits by exclusion of utterance-final items. Moreover, it may be that our results and those of Reynolds would be more parallel had she include final position in her analysis.

⁹ Although Crookes (1988) argues that it is a viable construct for L2 studies, we view "utterance" as a high-inference measure which requires considerable decision-making and abstraction from actual data and whose validity for interlanguage speech has not been well-established. Even the category of "word" is not always clearcut, especially for non-native speakers. We thus prefer to calculate our measures according to the relatively low-inference category of "syllable," though we have included the other measures for comparison to the results of other studies.

Table 2. Frequency of Hesitative Devices (Average for 9 Subjects)

Types of device	/Utterance	/100 Words	/100 Syllables
Pause			
(0)	1.10	16.67	12.05
(1)	0.53	8.06	5.83
(2)	0.36	5.48	3.96
(3)	0.13	1.94	1.40
(4)	0.05	0.78	0.57
Pause Total	2.17	32.93	23.79
Vocal Hesitators			
and	0.06	0.99	0.71
but	0.002	0.03	0.02
so	0.06	0.95	0.69
you know	0.03	0.44	0.32
well	0.04	0.58	0.42
like	0.03	0.41	0.29
m	0.26	3.88	2.80
uh	0.35	5.37	3.88
[*h]	0.29	4.39	3.17
[*s]	0.02	0.24	0.17
C	0.04	0.58	0.42
drawl	1.11	16.90	12.22
repeat	0.42	6.36	4.60
other	0.48	0.69	0.49
Vocal Total	2.75	41.80	30.21
Grand Total	4.91	74.73	54.01

RESULTS AND DISCUSSION

Overview of Results

Table 2 summarizes the overall use of hesitant devices by the nine subjects. Approximately 5 devices were used in each utterance, 75 in 100 words and 54 in 100 syllables (see grand total). The nine subjects in the present study used a fairly limited number of vocal hesitators, 15 in all: 6 lexical devices, 3 types of filled pause, 2 ingressive continuant hesitators, 2 types of clicks, drawls, and repeats (see below for discussion of each device). The lexical devices used by these speakers are: non-cohesive final *and*, *but*, *so*; and the parenthetical remarks *well*, *like*, *you know*. The syllabic fillers used are: *m*, *uh*, *ah*. The other vocal hesitators which occurred were an ingressive glottal approximant [**h*], an ingressive sibilant [**s*], a dental click and an alveopalatal click. Of these 15 devices, only eight occurred with a frequency approaching at least once in 100 words. They are, in increasing order of frequency: *so* (0.95), *and* (0.99), *m* (3.88), [**h*] (4.39), *uh* (5.37), repeats (6.36), and drawls (16.90).

Specific Devices

This section provides a brief description of each type of vocal hesitator and examples of how they were used by the subjects. The next section presents more general results and discussion.

And. This category includes not only a fully articulated *and* but also "a:nd," "a::n," "ant," "e:n" and any other variants most frequently manifested with different degrees of lengthening (indicated by ":") and/or devoicing of the final consonant (any variants located between /d/ and /t/). In terms of location and function, this category includes only those cases of *and* which occurred prepausally and which were judged to be a kind of filler or vocal hesitator. These tokens of *and* may function pragmatically to indicate planning points for possible discourse-continuation, though semantically they are relatively empty. The *and* hesitator category does not include the conjunction *and*, which conjoins phrases such as noun phrases (e.g., *boys and girls*), verb

phrases (e.g., *He ate and drank*), prepositional phrases (e.g., *He studied in the morning and at night*), and clauses such as nominal clauses (e.g., *He said that he had eaten a cake and that it was good*); or which conjoins sentences to indicate various semantic relationships such as temporal sequence (e.g., *Mary woke up and ate breakfast*). In the present analysis these cases of *and* were not counted. Whenever it was hard to judge whether a particular case of "and" was used as a hesitator or not, it was considered to be a non-hesitator. Thus, of the following examples only 1.3. was counted as an example of *and* in this category:

- 1.1. I studied English *anda* (0) mana:gement science [S3]
- 1.2. I: (0) sometimes: (0) uh: read a cooking book (Interviewer: m) (1) m:::
a:nd (3) uh: (2) (L) studied English [S2] NOTE: (L) = Laugh
- 1.3. I really (1) enjoy:ed (3) play outsi:de (0) with: my friend (2) *e::nd* (2)
 that's all [S1]

But. There was only one suspicious case of "but" being possibly used as a hesitator. The following example comes from Subject 1:

- 2.1. I liked s:tudy (1) when I was child (1) not now *bu:t*
 [*h] m::: (2) I don't like (0) exercise class [S1]

So. The same principle was used here as was used in the analysis of *and*, that is to say, the conjunctive use of *so* was excluded from this category. *So* was used heavily as a hesitator by S3 and S6. This usage may thus be subject to individual variation depending on personal style, developmental stage, or proficiency level. Some examples are given below:

- 3.1. (Interviewer:Next question is (0) how important is
 English in your life?) (0) English? (Interviewer: yeah)
 (0) [*h] *so::* (1) I work as a computer engineer (0) in
 my company [S3]
- 3.2. I played (0) kendo (3) very much (0) *so* (0) m: (2) I li:ke sports [S6]
 NOTE: *kendo* = Japanese sword fight

You know/well/like. These devices were relatively infrequent. *You know* and *well* were used only by three subjects each (S5, S7, S9 and S4, S7, S9 respectively) and *like* was used only by one subject (S7). The low frequency of these parenthetical remarks might be a result of the fact that they have more specific meanings than the other hesitant devices studied here and thus their usage is constrained to certain contexts. Or it may be that their use is part of a more advanced competency that involves audience awareness, since these devices are used to explicitly involve the listener in the speech event (Shiffrin, 1987). It is not clear, at any rate, whether the subjects had not acquired the usage of these items or whether the interview task happened not to favor their usage.

M. This category includes all cases with "m" [m] with variously lengthened varieties. It also includes "hm," though there were only a few cases of this variant. The longest case of "m" was observed in the data of S3 and S8:

4.1. (1) frightening experience (1) m:::::::::: (1) uh you

mean the [*h] (0) so:me terrible accident or [S3]

4.2. nicest experience (B) m:::::::::: (3) m: I think these
two yea:rs I th:::ink (0) frankly speaking uh: [S8]

Uh. This category includes variously lengthened forms of "uh" and "uhm" and "um", though none of these other variants occurred very often.

*[*h]/[*s].* These symbols indicate a heavy intake of air, much more clearly audible than regular breathing, which is marked as "B" in the transcription.

C. This symbol stands for a click sound. There were some cases of a dental click and an alveopalatal click.

Drawls. In the present analysis any occurrence of pre-pausal lengthening, in whatever context, was tallied as one instance of drawl. Thus, in the following example, "fou:nd" and "i:in" were counted as one instance of drawl each, "we:ll" was analyzed as one case of *well* and one case of drawl,

and "uh::" was counted as one instance of *uh* and one instance of drawl:

- 5.1. (3) we:ll (whispering) (1) I fou:nd (1) uh:: (creaky voice) (0) lots of things i:n (1) forest (0) and mountain [S9]

Drawling occurred in hesitators as well as other words. It also occurred within a word as shown in the above example. Both vowels and consonants were lengthened, and some lexical items contained two instances of drawl (i.e., when two phonemes were lengthened).

Repeats. In the present analysis, "repeat" is an unanalyzed category that includes any type of (phonological) repetition (a single sound, a syllable, a word, or a phrase). Many of the cases counted as repeats in this data seem to represent what might be labelled "false starts" or corrections. Examples of each case are given below (underlined parts):

- 6.1. I like studiedu (1) *I I like to study* (1) design [S6]
 6.2. bu *bu::*tterflies [S5]
 6.3. uh: it's the most (0) you know (1) m:: (2) best *best* things (0) in my life I think [S9]
 6.4. an:: (1) I: (1) m::: play: ha:d *played ha:d* (0) uh:: wid my friends [S2]

The criteria for identifying false starts or corrections independently of repeats in other studies are not clear and may not be entirely consistent. Thus, for comparability, it may be necessary to combine the figures for repeats or repetitions in other studies with those of false starts, and maybe also corrections, in order to compare their results to ours.¹⁰

¹⁰ For example, Grosjean (1980: 42) counts a subset of repetitions that he labels *repeats*, defined as: "any repetition that does not add to the meaning of the utterance." However, we have found it difficult to determine in every case whether or not an instance of repetition adds anything to the meaning of the utterance, particularly under a liberal definition of meaning that includes such semantic features as "emphasis" or pragmatic types of meaning having to do with the impression conveyed by the speaker to the listener. On the same page, Grosjean defines a false start as "any unfinished phrase or sentence." This definition could include cases of repeats of unfinished phrases or sentences. Deese (1980: 77-78) appears to restrict false starts to the beginning of sentences and corrections to position internal to sentences. The category of repetitions is characterized by him as including "words, syllables and sometimes even phrases" (Deese 1980: 78). Sabin, Clemmer, O'Connell, and Kowal (1979: 44) apparently intend

General Discussion of Results

For the nine subjects taken as a group and for each individual subject except S8, who used drawling in preference to pausing as the primary hesitation strategy, the most frequent hesitant device was the unfilled pause, which occurred with an average frequency of 2.17/utt, 32.93/100 wds, or 23.79/100 syls. The latter figure is almost identical to the figure for unfilled pauses cited above for German speakers retelling a German story in English (23.66/100 syls). Since retelling a story in an L2 is presumed to be, *ceteris paribus*, a more challenging task-type than were the JESL interviews, we can deduce from the parallel with the German data that the Japanese subjects in the present study might be relatively low proficiency learners in comparison to the German subjects in the earlier study. It is also possible that the Japanese subjects are using an L1-influenced strategy—one requiring frequent pausing—for constructing discourse in the L2.

In comparison to the performance of native speakers, the frequency of unfilled pause by the Japanese subjects is approximately 2-4.5 times the frequencies (12.6/100 syls or 7.22/100 wds) cited in Figure 1 for unfilled pauses in the unplanned speech of native English speakers. There is a consistent pattern for the Japanese subjects to use shorter pauses more frequently than longer pauses. The only counterexample to this tendency is the use by S3 of 2-second pauses more frequently (0.28/utt, 4.1/100 wds, 2.8/100 syls) than 1-second pauses (0.25/utt, 3.7/100 wds, 2.5/100 syls).¹¹ The typical length of pauses for the other eight subjects is less than 1 second. Thus, we can say that the general tendency in this subject population is to pause for short periods of time more frequently than would native speakers performing a task of equal or greater challenge.

corrections to be included under "false starts," as the example they give of this category of vocal hesitations is "Realizing he's...he suddenly realizes." With so much inconsistency in criteria for false starts and corrections, we have decided not to subclassify repetitions into these two categories.

¹¹ Recall that Subject 3 was also remarkable in her use of *so* as a hesitator.

Silent Pauses	44.06%	2.17/utt	32.93/100 wds	23.79/100 syls
Vocal Hesitations	55.94%	2.75/utt	41.80/100 wds	30.21/100 syls

Figure 3. Frequency of Pauses and Vocal Hesitations for Nine Japanese Subjects in Interview Data

Turning to vocal hesitations, it seems that on the whole, if we take the 15 devices as a group, these were preferred by the L2 learners to "bare" silences. As can be extracted from Table 2, the comparative frequencies are as shown in Figure 3.

These figures indicate that approximately 56% of the hesitant devices employed by these speakers were vocal hesitators, i.e., non-silent devices, while silent pauses accounted for approximately 44% of the total of hesitant devices. Among the devices other than unfilled pauses, drawling (with average frequencies of occurrence of 1.11/utt, 16.90/100 wds, 12.22/100 syls) occurred most frequently in the speech of all the subjects except for S7, who employed filled pauses more than either drawls or repeats, and accounts for 29% of the total of non-silent hesitant devices. It can be argued that drawling is more effective than unfilled pauses in simultaneously controlling the internal and external management of conversation and yet easier to use than the other hesitant devices, some of which are normally pragmatically (and semantically) constrained to certain contexts. It is also likely, considering the very high frequency of occurrence of drawls as compared to other devices in the data, that the use of this device in English is reinforced by similar Japanese usage, i.e., is affected by transfer, and/or represents a common or universal strategy for the construction of continuous discourse when the task does not require or allow pre-planning.

The high frequency of occurrence of filled pauses in this data (9.73/100 wds, or 7.03/100 syls—23.30% of the total for vocal hesitators) as compared to that of the native English speakers reported in Figure 1 (2.55/100 wds or 1.39/100 syls) is quite striking. The difference (3.82-5.06 times) probably reflects the much greater processing difficulty associated with speaking English as an L2 rather than as an L1. The relatively high occurrence of the hesitator *uh* (5.37/100 wds or 3.88/100 syls), which is probably the most common pause filler in English, might indicate reinforcement of universal or

L1 usage by a common L2 form. The high occurrence of *m* (3.88/100 wds or 2.80/100 syls), in contrast, cannot be directly related to its use in English, as discussed below.

The ratio of occurrence of drawling to occurrence of filled pauses is considerably greater for the nine JESL subjects than for Deschamps' French subjects speaking in their L1 and in English as L2. The ratio of drawls/filled pauses reported by Deschamps for French L1 is .76 and for English L2 is .57. For the Japanese-English interlanguage data presented here, the ratio is 1.74 (2.3 times that for French L1, 3.1 times that for English L2). Clearly, the Japanese speakers in this sample use drawl in preference to either unfilled pauses or filled pauses under the constraints of the task set for them in this investigation and probably also under the influence of transfer from Japanese.

The high frequency of syllabic hesitators as against parenthetical remarks—only three types of which occurred and only for four of the subjects—may indicate their differential difficulty, utility, or frequency in the input. The relatively low frequency of parenthetical remarks (0.09/utt, 1.43/100 wds, 1.03/100 syls) in this group of speakers is comparable to the lowest two groups of speakers in Pennington's (1988) data (1.02/100 syls and 1.07/100 syls) and is in contrast to the frequency of this category of expression for native speakers (1.84/100 syls). It therefore may represent an area of advanced communicative competence, in terms of either discourse function or social function. It may well be that these devices express a degree of solidarity with the listener which is not easy—or, from the speaker's point of view, not desirable—for a non-native to achieve.

In the pooled data (Table 2), the repeat is right behind the filled pause as a hesitant device (0.42/utt, 6.36/100 wds, 4.60/100 syls, or 15.2% of the total for vocal hesitators), though the rank order of occurrence of repeats vis-a-vis filled pauses is not the same for all speakers. Five subjects (S2, S3, S6, S7, S8) have a higher incidence of filled pauses than of repeats, while four subjects (S1, S4, S5, S9) have a higher incidence of repeats than of filled pauses. The average frequency of repeats in the data for the native Japanese speakers is .74 - 7.46 times the frequencies reported in Figure 1 for repetition by native speakers—.68/100 syls or 3.67/100 wds, for two different studies. The differences in these figures may have to do with the difference in task or setting or in the category of utterances analyzed as repeats or repetitions in different studies. For example, if we combine the figures in Deese (1980: 78) for what he labels

"Corrections" and/or "False Starts" with those for his category of "Repetitions," we get figures closer to those found in the interlanguage data of the present study.

The next most frequent vocal hesitator is the group of conjunctions *and*, *but*, and *so*, which together have a mean frequency of occurrence of 0.13/utt, 1.97/100 wds and 1.43/100 syls. With the exception of S7 and S9, these conjunctions were used as hesitators in preference to parenthetical remarks, whose frequency of occurrence was 0.09/utt, 1.43/110 wds, 1.03/100 syls. The latter figure is approximately 56% of the figure shown for native speaker use of parenthetical remarks (1.84/100 syls) in Figure 1. It seems that the Japanese speakers select conjunctions, which occur at natural pause points—i.e., between major constituents—for use as hesitators in preference to parenthetical remarks, which are more constrained contextually, semantically, and pragmatically. Moreover, the parenthetical remarks or discourse markers are more audience-oriented, and one can expect that non-natives at a relatively low level of proficiency will have neither the social skills nor the social motivation to make proper use of these devices.

Table 3 shows the total of conversational hesitators used by the female and the male subjects. From this data, no clear evidence of operation of the "masculinity constraint" described by Reynolds (1984) emerges. In fact, the total frequencies of occurrence of pauses, vocal hesitative devices, and the average for all types are strikingly similar for these two groups of speakers. One interpretation of the similarity in result is that a sex difference in the use of conversational hesitators in Japanese was neutralized when the subjects spoke English during the interviewing session in the present study.¹² In this case, the relevant factor differentiating L1 from L2 production might be the increased cognitive load involved in speaking in a second language, which might have prevented the Japanese males in the present study from dealing with what Reynolds terms the "masculinity constraint."

¹² Notice that Reynolds' formulation of the masculinity constraint was based on her observation of public speeches. Since the present study looked at face-to-face interaction, our results cannot be interpreted as against those of Reynolds. Data based on interviews from native Japanese speakers is necessary to determine whether the differential results which she obtained for males and females will manifest themselves in face-to-face interactions.

Table 3. Use of Hesitative Devices x Sex

Type of Device	Female			Male		
	/u	/100w	/100s	/u	/100w	/100s
Pause						
(0)	1.34	17.15	12.27	0.94	16.26	11.85
(1)	0.63	8.02	5.74	0.47	8.10	5.90
(2)	0.47	5.94	4.25	0.29	5.08	3.71
(3)	0.10	1.34	0.96	0.14	2.45	1.78
(4)	0.06	0.82	0.58	0.04	0.75	0.55
Pause Total	2.60	33.26	23.79	1.89	32.64	23.80
Vocal Hesitators						
and	0.05	0.67	0.48	0.07	1.26	0.92
but	0.01	0.07	0.05			
so	0.10	1.26	0.90	0.04	0.69	0.50
you know				0.05	0.82	0.59
well	0.02	0.30	0.21	0.05	0.82	0.59
like				0.04	0.75	0.55
m	0.35	4.45	3.19	0.20	3.39	2.47
uh	0.26	3.27	2.34	0.41	7.16	5.22
[*h]	0.55	7.05	5.05	0.12	2.13	1.56
[*s]	0.01	0.15	0.11	0.02	0.31	0.23
C	0.02	0.30	0.21	0.05	0.82	0.59
drawl	1.57	20.04	14.34	0.83	14.25	10.39
repeat	0.38	4.83	3.45	0.44	7.66	5.58
other	0.05	0.59	0.43	0.05	0.76	0.55
Vocal Total	3.37	42.98	30.75	2.36	40.80	29.75
Grand Total	5.97	76.24	54.54	4.25	73.45	53.55

This explanation, though interesting, is problematic in light of the fact that female subjects in the present study made greater use of drawls than male subjects did (for females, 1.57/utt, 20.04/100 wds, 14.34/100 syls; for males, 0.83/utt, 14.25/100 wds, 10.39/100 syls). As can be seen in Table 3, the male subjects also used the apparently more salient parenthetical remarks *well*, *you know*, and *like* more often than the female subjects; in particular, the latter two devices were used only by the male subjects. Since Pennington (1987a) found that these devices were used only by conversationally advanced learners, their use primarily or exclusively by males in the present study may indicate that the males had an overall level of spoken English proficiency which was higher than that of the females.

The data also shows a greater use of [*h] by female subjects than by males. The instances of [*h] may be indicative of transfer of a breathy voice quality noted by Vance (1987: 5) for Japanese females as indicating politeness.¹³ If the breathy hesitators [*h] and [*s] have been transferred from Japanese into English discourse, then the use of these devices parallels the relatively high level of occurrence of *m*, which is rare in English as a pause filler,¹⁴ whereas in Japanese it often has this function (Pennington 1987a). The relatively high occurrence of *and* and *so* in final position as a kind of filler, boundary marker, or discourse marker would seem also to indicate the influence of Japanese, though in a less direct fashion. Clause-final position in Japanese may be used for just this sort of item i.e., loosely constructed discourse conjunctions or transitions such as *ne*, *demo*, and *ano*. Moreover, the phonetics of *and* and *so*, as pointed out by Pennington (1987b), closely parallel those of a number of Japanese discourse conjunctions/transitions—e.g., *ano*, *so* and many items beginning with *so-* (e.g., *sono*, *sorede*, *sonde*, *sodakara*). Hence, some degree of transfer/reinforcement of these items is expected, and the use of these items by the present group of speakers, as in the previously mentioned study (Pennington 1987a,b), can be at least partially explained in those terms.

¹³ If so, then the use of this device by females might be a good indicator of psychological distance between the interviewee and the interviewer, as perceived by the former, and so an indicator of the level of formality in the interview.

¹⁴ In English [m] is generally used as a feedback device to signal acquiescence or pleasure. In Japanese, this filler can also be used in this way but is sufficiently "bleached" semantically that it can be more generally used to "buy time." Because of this hesitant function, [m] is apparently much more widespread in Japanese than in English discourse.

CONCLUSION

The present study attempts to provide a description of some conversational management devices used as hesitators by L2 learners. It has yielded some 15 categories of devices, including pausing, that could be classified under the general heading of hesitation phenomena used by adult Japanese learners of English. Major findings of the study are:

- (1) The most frequent individual hesitant device was the unfilled pause.
- (2) The most common pause duration was less than one second. (3) The subjects used a variety of vocal hesitators other than unfilled pauses.
- (4) The most common type of vocal hesitator was drawling of a syllable or phoneme.
- (5) Use of filled pauses was common.
- (6) Use of parenthetical remarks was not common.
- (7) Females employed drawl more than males.
- (8) Males employed parenthetical remarks more than females.
- (9) The data are in many respects not parallel to previously reported data for other (mainly European) L2 populations.
- (10) Many aspects of the data point to the possible influence of transfer or reinforcement from the L1 in the use of hesitant devices in the L2.

In general, the results of the study parallel those of Pennington (1987a,b; 1988).

Purely hesitant devices cannot be reliably identified in terms of phonological shape alone. Moreover, there is considerable overlap in form and function between the categories of conjunctions, transitions, parenthetical words and phrases, back-channel devices, fillers, and syllabics—including syllabic consonants such as [m] or [s]. In performing the analysis of this study, the authors have attempted to develop consistent categorizations of hesitation phenomena which best fit the data at hand. In some cases, this has necessitated departing somewhat from the practices of other researchers, thus limiting to some extent the generalizability of our results. In spite of the limitations of the present study, it is hoped that the results described here point to some interesting areas for further research and refinement of methodology in this

generally neglected area of how speakers communicate when they are not sure what they have to say.

Received December 6, 1989

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